

ABSTRACT

A photoplethysmographic instrument is used to obtain physiological parameter information related to low frequency heart rate and blood volume variability. In one implementation, a plethysmographic signal is filtered relative to a Mayer Wave frequency to provide an output related to low frequency blood volume variability. In another implementation, the photoplethysmographic signal is first processed to obtain a heart rate signal and the heart rate signal is in turn processed to obtain information regarding low frequency heart rate variability. In either case, a Mayer Wave effect having potential diagnostic significance can be monitored using a photoplethysmographic instrument such as a pulse oximeter.